ELSEVIER

Carbohydrate Research 297 (1997) III–IV

CARBOHYDRATE RESEARCH

Author index

Ágoston, K. 153
Akiyama, T. 365

Bandwar, R.P. 333, 341
Batta, G. 153
Bernlind, C. 251
Block, K. 347
Boggs, J.M. 93
Boullanger, P. 117
Bretting, H. 281

Caldeira, M.M. 191
Carvalho, F. 117
Coutinho, P.M. 309

Das, T. 243
Delcour, J.A. 347
Detellier, C. 201
Doco, T. 181
Dowd, M.K. 309

Eerlingen, R.C. 347
Evangelatos, G.P. 289

Fincher, G.B. 365

Gil, V.M.S. 191
Grand, E. 169

Hara, K. 301
Havlíček, V. 375
Heidelberg, T. 281
Hrmova, M. 365

Ishida, M. 379
Ishihara, M. 273
Ishii, T. 273
Israeli, Y. 201

Jacobs, H. 347
Jegorov, A. 375
Jung, K.-H. 229

Kadam, R.M. 333
Kamal, M. 175
Kamerling, J.P. 209
Kariya, Y. 273
Kawamura, M. 187
Kerékgyártó, J. 107, 153
Kitahata, S. 301
Kitamoto, T. 127
Klaveness, J. 325
Koizumi, K. 301
Koshy, K.M. 93
Kulicke, W.-M. 135
Kumazawa, T. 379
Kyogashima, M. 273

Lafont, D. 117
Leondiadis, L. 289
Lettau, A.I. 135
Leydet, A. 175
Livaniou, E. 289
Lubineau, A. 169
Lüttge, H. 281

Maaheimo, H. 145
Matsuba, S. 379
McNaught, A.D. 1
Micali, F. 101
Montero, J.-L. 175
Murata, J. 127

Nagy, Z. 107
Nakai, H. 187
Norrild, J.C. 261

Ohya, Y. 127
Okada, Y. 301
Okazaki, Y. 301
Onodera, J. 379
Oscarson, S. 251
Ouchi, T. 127

Pakhomova, S. 375
Pavia, A.A. 175
Pedersen, C. 261
Pellerin, P. 181

Räbinä, J. 145
Ragoussis, V. 289
Ramos, M.L. 191
Ransom, R.F. 357
Rao, C.P. 333, 341
Reilly, P.J. 309
Renkonen, O. 145
Rizzo, R. 101
Rongved, P. 325
Roque, J.-P. 175

Sastry, M.D. 333
Sato, S. 379
Sawada, M. 187
Scherrmann, M.-C. 169
Schmidt, R.R. 229
Sedmera, P. 375
Shashidhar, M.S. 243
Shibuya, N. 365
Skjåk-Bræk, G. 101

Søtofte, I. 261
Staaf, M. 297
Stangier, K. 281
Strande, P. 325
Szurmai, Z. 107, 153

Takai, Y. 187
Terjung, A. 229
Thielking, H. 135
Thiem, J. 281
Thu, B. 101
Tikkanen, J.M. 209
Trumtel, M. 163

Uchiyama, T. 187
Urbina, F. 297

Van Dorst, J.A.L.M. 209
Van Heusden, C.J. 209
Vidal, S. 181
Vittur, F. 101
Vliegenthart, J.F.G. 209
Volc, J. 375
Vottero, P. 117

Walton, J.D. 357
Watabe, S. 273
Weintraub, A. 297
Wessel, H.P. 163
Widmalm, G. 297
Williams, P. 181
Winum, J.-Y. 175

ELSEVIER

Carbohydrate Research 297 (1997) V–VIII

CARBOHYDRATE RESEARCH

Subject index

2-Acetamido-2-deoxyglucosides
A simple approach to the synthesis of muramic acid and isomuramic acid: ^{1}H and ^{13}C NMR characterisation 289
N-Acetyllactosamine
Synthesis of Hex*p*-(1 → 4)-β-D-Glc*p*NAc-(1 → 2)-α-D-Man*p*- (1 → O)$(CH_2)_7CH_3$ probes for exploration of the substrate specificity of glycosyltransferases: Part II, Hex = 3-*O*-methyl-β-D-Gal, 3-deoxy-β-D-Gal, 3-deoxy-3-fluoro-β-D-Gal, 3-amino-3-deoxy-β-D-Gal, β-D-Gul, α-L-Alt, or β-L-Gal 209
Alditols
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Alginate gel beads
The spatial distribution of calcium in alginate gel beads analysed by synchrotron-radiation induced X-ray emission (SRIXE) 101
Alkylations
Silver (I) oxide assisted *O*-alkylation of 2,4-di-*O*-benzoyl-*myo*-inositol-1,3,5-orthoformate and its 6-*O*-substituted derivatives: transannular participation of oxygen 243
Amino-acid linker
Starch microspheres as carriers for X-ray imaging contrast agents: Synthesis and stability of new amino-acid linker derivatives 325
Aminodeoxyalditols
A highly stereoselective synthesis of 1-amino-2,5-anhydro-1-deoxyhexitols via 2-trifluoromethyl-oxazolinium intermediates 261
Amphiphiles
New 2/2-type surfactants via anomeric *O*-alkylation of mannofuranose 229
Anhydrohexitols
A highly stereoselective synthesis of 1-amino-2,5-anhydro-1-deoxyhexitols via 2-trifluoromethyl-oxazolinium intermediates 261
Anomeric structure
The effect of anomerism and hydration on the C–O–S vibrational frequency of D-galactose-3-sulfate determined by FTIR spectroscopy 93
Apple
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Aqueous hetero Diels–Alder reactions
New access to *C*-disaccharide analogs of α,α-trehalose using an aqueous hetero Diels–Alder reaction 169
α-Arabinofuranosidase, extracellular
Purification and characterization of extracellular β-xylosidase and α-arabinosidase from the plant pathogenic fungus *Cochliobolus carbonum* 357
AutoDock
Automated docking of isomaltose analogues in the glucoamylase active site 309
Bacterial antigens
Synthesis of L-*glycero*-D-*manno*-heptopyranose-containing oligosaccharide structures found in lipopolysaccharides from *Haemophilus influenzae* 251
(1 → 3)-β-glucanase
Purification and characterization of a (1 → 3)-β-D-glucan endohydrolase from rice (*Oryza sativa*) bran 365
Bioconversion
Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
Bis-*C*-glycosylbenzene derivatives
Synthesis of 1-[3,5-bis-(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)-2,4,6-trihydroxyphenyl]ethanone: An intermediate of potential usefulness for synthesis of bis-*C*-glucosyl flavonoids 379
Bismuth(III) halides
A convenient synthesis of peracetylated glycosyl halides using bismuth(III) halides as catalysts 175
Block glycoside synthesis
Pivalates in the selective protection and activation of maltose for the synthesis of sulfated 3-deoxy-maltosyl-(1 → 4)-α,α-trehalose 163
Calcium distribution
The spatial distribution of calcium in alginate gel beads analysed by synchrotron-radiation induced X-ray emission (SRIXE) 101
Carbohydrates
Synthesis of L-*glycero*-D-*manno*-heptopyranose-containing oligosaccharide structures found in lipopolysaccharides from *Haemophilus influenzae* 251
Carrot
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Cerebroside sulfate
The effect of anomerism and hydration on the C–O–S vibrational frequency of D-galactose-3-sulfate determined by FTIR spectroscopy 93
Cochliobolus carbonum
Purification and characterization of extracellular β-xylosidase and α-arabinosidase from the plant pathogenic fungus *Cochliobolus carbonum* 357
Co(II)
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Co(II) 333
Complex
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Co(II) 333
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Ni(II) 341
Complexation
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Complexes
NMR study of the complexation of D-galactonic acid with tungsten(VI) and molybdenum(VI) 191
Conformational analysis
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Contrast agents
Starch microspheres as carriers for X-ray imaging contrast agents: Synthesis and stability of new amino-acid linker derivatives 325

C–O–S vibrational frequency
The effect of anomerism and hydration on the C–O–S vibrational frequency of D-galactose-3-sulfate determined by FTIR spectroscopy 93
Cyclitols
Silver (I) oxide assisted *O*-alkylation of 2,4-di-*O*-benzoyl-*myo*-inositol-1,3,5-orthoformate and its 6-*O*-substituted derivatives: transannular participation of oxygen 243
Cycloinulo-oligosaccharide fructanotransferase
Synthesis of methyl 6-*O*-β-inulotriosyl-α-D-glucopyranoside by intermolecular transglycosylation reaction of cycloinulo-oligosaccharide fructanotransferase 187
Cyclomaltohexaose (αCD)
Isolation by HPLC of the positional isomers of $6^1,2^n$-di-*O*-α-D-galactopyranosylcyclomaltohexaose ($n = 1–6$) and determination of their structures by enzymatic degradation 301
Daucus carota
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Deoxygenation
Pivalates in the selective protection and activation of maltose for the synthesis of sulfated 3-deoxy-maltosyl-(1 → 4)-α,α-trehalose 163
3-Deoxy-maltose
Pivalates in the selective protection and activation of maltose for the synthesis of sulfated 3-deoxy-maltosyl-(1 → 4)-α,α-trehalose 163
Detergents
New 2/2-type surfactants via anomeric *O*-alkylation of mannofuranose 229
2,3-Diketo-D-glucose
Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
Dimerization
Effect of dimerization of the D-glucose analogue of muramyl dipeptide on stimulation of macrophage-like cells 127
Docking
Automated docking of isomaltose analogues in the glucoamylase active site 309
Electrospray
Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
Enterotoxigenic
Structure determination of the O-antigenic polysaccharide from the enterotoxigenic *Escherichia coli* (ETEC) O101 297
Enzymatic degradation
Isolation by HPLC of the positional isomers of $6^1,2^n$-di-*O*-α-D-galactopyranosylcyclomaltohexaose ($n = 1–6$) and determination of their structures by enzymatic degradation 301
Enzymic liquefaction
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Erythritol derivatives
New 2/2-type surfactants via anomeric *O*-alkylation of mannofuranose 229
Escherichia coli, O-antigen
Structure determination of the O-antigenic polysaccharide from the enterotoxigenic *Escherichia coli* (ETEC) O101 297
Fucose branch
Structure of fucose branches in the glycosaminoglycan from the body wall of the sea cucumber *Stichopus japonicus* 273
Fungi
Purification and characterization of extracellular β-xylosidase and α-arabinosidase from the plant pathogenic fungus *Cochliobolus carbonum* 357
Galactan
The specificity of an α-(1 → 2)-L-galactosyltransferase from albumen glands of the snail *Helix pomatia* 281
D-Galactonic acid
NMR study of the complexation of D-galactonic acid with tungsten(VI) and molybdenum(VI) 191
Galactose-3-sulfate
The effect of anomerism and hydration on the C–O–S vibrational frequency of D-galactose-3-sulfate determined by FTIR spectroscopy 93
L-Gal transferase
The specificity of an α-(1 → 2)-L-galactosyltransferase from albumen glands of the snail *Helix pomatia* 281
β-(1 → 6)-D-*N*-acetylglucosaminyltransferase (GlcNAc to Gal)
^1H and ^{13}C NMR analysis of the pentasaccharide Galβ(1 → 4)GlcNAcβ(1 → 3)-[GlcNAcβ(1 → 6)]Galβ(1 → 4)GlcNAc synthesized by the mid-chain β-(1 → 6)-D-*N*-acetylglucosaminyltransferase of rat serum 145
Glucan
Correlation between immunological activity, molar mass, and molecular structure of different (1 → 3)-β-D-glucans 135
D-Glucitol
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Glucoamylase
Automated docking of isomaltose analogues in the glucoamylase active site 309
D-Glucose
Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
Glycoproteins
Synthesis of Hex*p*-(1 → 4)-β-D-Glc*p*NAc-(1 → 2)-α-D-Man*p*-(1 → O)$(CH_2)_7CH_3$ probes for exploration of the substrate specificity of glycosyltransferases: Part II, Hex = 3-*O*-methyl-β-D-Gal, 3-deoxy-β-D-Gal, 3-deoxy-3-fluoro-β-D-Gal, 3-amino-3-deoxy-β-D-Gal, β-D-Gul, α-L-Alt, or β-L-Gal 209
Glycopyranosyl halides
A convenient synthesis of peracetylated glycosyl halides using bismuth(III) halides as catalysts 175
Glycosaminoglycan
Structure of fucose branches in the glycosaminoglycan from the body wall of the sea cucumber *Stichopus japonicus* 273
C-Glycoside
New access to *C*-disaccharide analogs of α,α-trehalose using an aqueous hetero Diels–Alder reaction 169
Glycosylation
A convenient access to β-glycosides of *N*-acetyllactosamine 117
C-Glycosylation
Synthesis of 1-[3,5-bis-(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)-2,4,6-trihydroxyphenyl]ethanone: An intermediate of potential usefulness for synthesis of bis-*C*-glucosyl flavonoids 379
C-Glycosyl compounds
Synthesis of 1-[3,5-bis-(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)-2,4,6-trihydroxyphenyl]ethanone: An intermediate of potential usefulness for synthesis of bis-*C*-glucosyl flavonoids 379
Glycosyltransferases
Synthesis of Hex*p*-(1 → 4)-β-D-Glc*p*NAc-(1 → 2)-α-D-Man*p*-(1 → O)$(CH_2)_7CH_3$ probes for exploration of the substrate specificity of glycosyltransferases: Part II, Hex = 3-*O*-methyl-β-D-Gal, 3-deoxy-β-D-Gal, 3-deoxy-3-fluoro-β-D-Gal, 3-amino-3-deoxy-β-D-Gal, β-D-Gul, α-L-Alt, or β-L-Gal 209
Halogenation
A convenient synthesis of peracetylated glycosyl halides using bismuth(III) halides as catalysts 175
Halogenosilanes
A convenient synthesis of peracetylated glycosyl halides using bismuth(III) halides as catalysts 175
Helix pomatia, snail
The specificity of an α-(1 → 2)-L-galactosyltransferase from albumen glands of the snail *Helix pomatia* 281

Heptopyranose
Synthesis of L-*glycero*-D-*manno*-heptopyranose-containing oligosaccharide structures found in lipopolysaccharides from *Haemophilus influenzae* 251
Heterogeneous doubly branched
Isolation by HPLC of the positional isomers of $6^1,2^n$-di-*O*-α-D-galactopyranosylcyclomaltohexaose ($n = 1–6$) and determination of their structures by enzymatic degradation 301
HPLC
Isolation by HPLC of the positional isomers of $6^1,2^n$-di-*O*-α-D-galactopyranosylcyclomaltohexaose ($n = 1–6$) and determination of their structures by enzymatic degradation 301
Hydrogen fluoride
A highly stereoselective synthesis of 1-amino-2,5-anhydro-1-deoxyhexitols via 2-trifluoromethyl-oxazolinium intermediates 261
Hydrothermal treatment
Effects of hydrothermal treatments on the rheological properties of potato starch 347
Immunological activity
Correlation between immunological activity, molar mass, and molecular structure of different (1 → 3)-β-D-glucans 135
Inositol
Silver (I) oxide assisted *O*-alkylation of 2,4-di-*O*-benzoyl-*myo*-inositol-1,3,5-orthoformate and its 6-*O*-substituted derivatives: transannular participation of oxygen 243
Intermolecular transfructosylation
Synthesis of methyl 6-*O*-β-inulotriosyl-α-D-glucopyranoside by intermolecular transglycosylation reaction of cycloinulo-oligosaccharide fructanotransferase 187
Intermolecular transglycosylation
Synthesis of methyl 6-*O*-β-inulotriosyl-α-D-glucopyranoside by intermolecular transglycosylation reaction of cycloinulo-oligosaccharide fructanotransferase 187
Iodoacetoxylation
A convenient access to β-glycosides of *N*-acetyllactosamine 117
2-Iodoglycosyl azide
A convenient access to β-glycosides of *N*-acetyllactosamine 117
Isomaltose
Automated docking of isomaltose analogues in the glucoamylase active site 309
Isomuramic acid
A simple approach to the synthesis of muramic acid and isomuramic acid: ^{1}H and ^{13}C NMR characterisation 289
Kinetic analysis
Purification and characterization of a (1 → 3)-β-D-glucan endohydrolase from rice (*Oryza sativa*) bran 365
Lactal
A convenient access to β-glycosides of *N*-acetyllactosamine 117
Lactosamine
A convenient access to β-glycosides of *N*-acetyllactosamine 117
^{139}La NMR
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Lanthanum cation
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
LC–MS
Isolation by HPLC of the positional isomers of $6^1,2^n$-di-*O*-α-D-galactopyranosylcyclomaltohexaose ($n = 1–6$) and determination of their structures by enzymatic degradation 301
Light-scattering
Correlation between immunological activity, molar mass, and molecular structure of different (1 → 3)-β-D-glucans 135
Lipopolysaccharide
Synthesis of L-*glycero*-D-*manno*-heptopyranose-containing oligosaccharide structures found in lipopolysaccharides from *Haemophilus influenzae* 251
Macrophage-like cells
Effect of dimerization of the D-glucose analogue of muramyl dipeptide on stimulation of macrophage-like cells 127
Maltose
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Co(II) 333
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Ni(II) 341
Malus domestica
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
MDP
Effect of dimerization of the D-glucose analogue of muramyl dipeptide on stimulation of macrophage-like cells 127
Methylation analysis
Structure of fucose branches in the glycosaminoglycan from the body wall of the sea cucumber *Stichopus japonicus* 273
Methyl 6-*O*-β-inulotriosyl-α-D-glucopyranoside
Synthesis of methyl 6-*O*-β-inulotriosyl-α-D-glucopyranoside by intermolecular transglycosylation reaction of cycloinulo-oligosaccharide fructanotransferase 187
Mid-chain branching
^{1}H and ^{13}C NMR analysis of the pentasaccharide Galβ(1 → 4)GlcNAcβ(1 → 3)-[GlcNAcβ(1 → 6)]Galβ(1 → 4)GlcNAc synthesized by the mid-chain β-(1 → 6)-D-*N*-acetylglucosaminyltransferase of rat serum 145
MM3
Automated docking of isomaltose analogues in the glucoamylase active site 309
Molecular mechanics
Automated docking of isomaltose analogues in the glucoamylase active site 309
Molybdenum
NMR study of the complexation of D-galactonic acid with tungsten(VI) and molybdenum(VI) 191
Monosaccharide
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Co(II) 333
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Ni(II) 341
Multinuclear magnetic resonance
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Muramic acid
A simple approach to the synthesis of muramic acid and isomuramic acid: ^{1}H and ^{13}C NMR characterisation 289
Mycobacterium
Syntheses of spacer-armed carbohydrate components of the *Mycobacterium avium* serocomplex serovar 8 153
Neighbouring group effects
Silver (I) oxide assisted *O*-alkylation of 2,4-di-*O*-benzoyl-*myo*-inositol-1,3,5-orthoformate and its 6-*O*-substituted derivatives: transannular participation of oxygen 243
Ni(II)
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Ni(II) 341
NMR
^{1}H and ^{13}C NMR analysis of the pentasaccharide Galβ(1 → 4)GlcNAcβ(1 → 3)-[GlcNAcβ(1 → 6)]Galβ(1 → 4)GlcNAc synthesized by the mid-chain β-(1 → 6)-D-*N*-acetylglucosaminyltransferase of rat serum 145
NMR study of the complexation of D-galactonic acid with tungsten(VI) and molybdenum(VI) 191

Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
NMR spectroscopy
Structure determination of the O-antigenic polysaccharide from the enterotoxigenic *Escherichia coli* (ETEC) O101 297
Novel bridge molecules
Syntheses of spacer-armed carbohydrate model compounds 107
Oligo-(*N*-acetyllactosamino)glycans
^{1}H and ^{13}C NMR analysis of the pentasaccharide Galβ(1 → 4)GlcNAcβ(1 → 3)-[GlcNAcβ(1 → 6)]Galβ(1 → 4)GlcNAc synthesized by the mid-chain β-(1 → 6)-D-*N*-acetylglucosaminyltransferase of rat serum 145
Oligosaccharide synthesis
Syntheses of spacer-armed carbohydrate components of the *Mycobacterium avium* serocomplex serovar 8 153
Synthesis of L-*glycero*-D-*manno*-heptopyranose-containing oligosaccharide structures found in lipopolysaccharides from *Haemophilus influenzae* 251
Pectic polysaccharide
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Pectin
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Pectinases
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Pivalates
Pivalates in the selective protection and activation of maltose for the synthesis of sulfated 3-deoxy-maltosyl-(1 → 4)-α,α-trehalose 163
Polysaccharides
Starch microspheres as carriers for X-ray imaging contrast agents: Synthesis and stability of new amino-acid linker derivatives 325
Positional isomer, separation
Isolation by HPLC of the positional isomers of $6^{1},2^{n}$-di-*O*-α-D-galactopyranosylcyclomaltohexaose (n = 1–6) and determination of their structures by enzymatic degradation 301
Rhamnogalacturonan II
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Rheology
Effects of hydrothermal treatments on the rheological properties of potato starch 347
Ribitol
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Rice
Purification and characterization of a (1 → 3)-β-D-glucan endohydrolase from rice (*Oryza sativa*) bran 365
Sea cucumber
Structure of fucose branches in the glycosaminoglycan from the body wall of the sea cucumber *Stichopus japonicus* 273
Simulated annealing
Automated docking of isomaltose analogues in the glucoamylase active site 309
Size-exclusion chromatography
Correlation between immunological activity, molar mass, and molecular structure of different (1 → 3)-β-D-glucans 135
Solanum lycopersicum
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Spacer-armed glycosides
Syntheses of spacer-armed carbohydrate model compounds 107
Syntheses of spacer-armed carbohydrate components of the *Mycobacterium avium* serocomplex serovar 8 153
Starch
Effects of hydrothermal treatments on the rheological properties of potato starch 347
Staudinger reaction
A convenient access to β-glycosides of *N*-acetyllactosamine 117
Stimulation activity
Effect of dimerization of the D-glucose analogue of muramyl dipeptide on stimulation of macrophage-like cells 127
Structural analysis
Isolation by HPLC of the positional isomers of $6^{1},2^{n}$-di-*O*-α-D-galactopyranosylcyclomaltohexaose (n = 1–6) and determination of their structures by enzymatic degradation 301
Substrate analogues
Synthesis of Hex*p*-(1 → 4)-β-D-Glc*p*NAc-(1 → 2)-α-D-Man*p*-(1 → O)$(CH_2)_7CH_3$ probes for exploration of the substrate specificity of glycosyltransferases: Part II, Hex = 3-*O*-methyl-β-D-Gal, 3-deoxy-β-D-Gal, 3-deoxy-3-fluoro-β-D-Gal, 3-amino-3-deoxy-β-D-Gal, β-D-Gul, α-L-Alt, or β-L-Gal 209
Substrate specificity
Purification and characterization of a (1 → 3)-β-D-glucan endohydrolase from rice (*Oryza sativa*) bran 365
Sulfates
Pivalates in the selective protection and activation of maltose for the synthesis of sulfated 3-deoxy-maltosyl-(1 → 4)-α,α-trehalose 163
New 2/2-type surfactants via anomeric *O*-alkylation of mannofuranose 229
Sulfate substitution
Structure of fucose branches in the glycosaminoglycan from the body wall of the sea cucumber *Stichopus japonicus* 273
Surface tension measurements
New 2/2-type surfactants via anomeric *O*-alkylation of mannofuranose 229
Tetrahydrofurans
A highly stereoselective synthesis of 1-amino-2,5-anhydro-1-deoxyhexitols via 2-trifluoromethyl-oxazolinium intermediates 261
Thermodynamics
Multinuclear magnetic resonance study of the complexation of lanthanum (III) by D-glucitol and ribitol in aqueous solution 201
Tomato
Rhamnogalacturonan II, a dominant polysaccharide in juices produced by enzymic liquefaction of fruits and vegetables 181
Transition metal
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Co(II) 333
Transition-metal saccharide chemistry: synthesis and characterization of D-glucose, D-fructose, D-galactose, D-xylose, D-ribose, and maltose complexes of Ni(II) 341
Trehalase inhibitors
New access to *C*-disaccharide analogs of α,α-trehalose using an aqueous hetero Diels–Alder reaction 169
Trehalose
New access to *C*-disaccharide analogs of α,α-trehalose using an aqueous hetero Diels–Alder reaction 169
Tungsten
NMR study of the complexation of D-galactonic acid with tungsten(VI) and molybdenum(VI) 191
X-Ray diffraction
Structural analysis of crystalline D-*erythro*-hexos-2,3-diulose (2,3-diketo-D-glucose) prepared enzymatically from D-glucose 375
X-ray fluorescence
The spatial distribution of calcium in alginate gel beads analysed by synchrotron-radiation induced X-ray emission (SRIXE) 101
X-ray imaging
Starch microspheres as carriers for X-ray imaging contrast agents: Synthesis and stability of new amino-acid linker derivatives 325
β-Xylosidase, extracellular
Purification and characterization of extracellular β-xylosidase and α-arabinosidase from the plant pathogenic fungus *Cochliobolus carbonum* 357